CLAIMS

What is claimed is:

1   1.   A method comprising:

2   referencing an electronic file to determine whether a network layer address providing

3   server interface and a router interface are on the same subnet;

4   determining configuration information for the network layer address providing server

5   interface based, at least in part, on information in the electronic file; and

6   determining configuration information for the router interface based, at least in part,

7   on information in the electronic file.

1   2.   The method of claim 1, wherein the network layer address providing server interface

2   is a Dynamic Host Configuration Protocol (DHCP) server interface.

1   3.   The method of claim 2, wherein referencing the electronic file to determine whether

2   the Dynamic Host Configuration Protocol (DHCP) server interface and the router interface

3   are on the same subnet further comprises:

4   creating a virtual memory map based on the referenced electronic file; and

5   analyzing the virtual memory map to determine whether the Dynamic Host

6   Configuration Protocol (DHCP) server interface and the router interface are on the same

7   subnet.

1   4.   The method of claim 1, wherein referencing the electronic file comprises:

2   referencing an electronic list of network components having a standardized syntax.

1 5.   The method of claim 4, wherein the electronic list of available network components

2 includes addressing scheme information to identify an addressing scheme for the listed

3 network components.

1 6.   The method of claim 1,

2   wherein the network layer address providing server interface is a DHCP server

3 interface; and

4   wherein automatically determining configuration information for the DHCP server

5 interface based, at least in part, on information in the electronic file comprises:

6   determining an IP address of the DHCP server interface.

1 7.   The method claim 6, wherein determining configuration information for the DHCP

2 server interface based, at least in part, on information in the electronic file comprises:

3   determining a gateway IP address for the subnet.

1 8.   The method of claim 1, wherein automatically determining configuration information

2 for the router interface based, at least in part, on information in the electronic file comprises:

3   determining an IP address of the router interface.

1 9.   The method of claim 1,

2   wherein the network layer address providing server interface is a DHCP server

3 interface; and

4   further comprising:

5   programmatically configuring the DHCP server with the determined configuration

6 information.

1   10.   The method of claim 9, wherein programmatically configuring the DHCP server with

2   the determined configuration information comprises:

3   calling a function to interact with the DHCP server and change its state.

1   11.   The method of claim 10, wherein calling the function to interact with the DHCP

2   server and change its state comprises:

3   passing the determined IP address of the DHCP server interface and the determined

4   gateway IP address to the DHCP server.

1   12.   The method of claim 1, further comprising:

2   programmatically configuring the router with the determined configuration

3   information.

1   13.   The method of claim 12, wherein programmatically configuring the router with the

2   determined configuration information comprises:

3   calling a function to interact with the router and change its state.

1   14.   The method of claim 13, wherein calling the function to interact with the router and

2   change its state comprises:

3   passing the determined IP address of the router interface to the router.

1   15.   A network comprising:

2   a router having a router interface associated with a subnet;

3   a DHCP server having a DHCP interface associated with the subnet; and

4   a node coupled with the router and the DHCP server and having a processor and logic

5   executable thereon to

6   reference an electronic file to determine whether a DHCP server

7   interface and a router interface are on the same subnet; and

8   determine configuration information for the DHCP server interface

9   based, at least in part, on information in the electronic file; and

10   determine configuration information for the router interface based, at

11   least in part, on information in the electronic file.

1   16.   The network of claim 15, wherein the referenced electronic file comprises a list of

2   network components having a standardized syntax.

1   17.   The network of claim 16, wherein the electronic list of network components includes

2   addressing scheme information to identify an addressing scheme for the listed network

3   components.

1   18.   The network of claim 15, wherein the node coupled with the router and the DHCP

2   server and having a processor and logic executable thereon to automatically determine

3   configuration information for the DHCP server interface based, at least in part, on

4   information in the electronic file comprises logic executable to

5   determine an IP address of the DHCP server interface; and

6   determine a gateway IP address for the subnet.

1   19.   The network of claim 15, wherein the node coupled with the router and the DHCP

2   server and having a processor and logic executable thereon comprises logic executable

3   thereon further to

4   programmatically configure the router with the determined configuration information;

5   and to

6   programmatically configure the DHCP server with the determined configuration

7   information.

1   20.   The network of claim 15, wherein the node is the DHCP server.

1   21.   An article of manufacture comprising:

2   an electronically accessible medium providing instructions that, when executed by an

3   apparatus, cause the apparatus to

4   reference an electronic file to determine whether a DHCP server interface and a

5   router interface are on the same subnet;

6   determine configuration information for the DHCP server interface based, at least in

7   part, on information in the electronic file; and

8   determine configuration information for the router interface based, at least in part, on

9   information in the electronic file.

1   22.   The article of manufacture of claim 21, wherein the electronically accessible medium

2   providing instructions that, when executed by the apparatus, cause the apparatus to reference

3   the electronic file, comprises instructions to cause the apparatus to:

4   reference a virtual map of network resources and associations.

1   23.   The article of manufacture of claim 21, wherein the electronically accessible medium

2   providing instructions that, when executed by the apparatus, cause the apparatus to

3   automatically determine configuration information for the DHCP server interface, comprises

4   instructions to cause the apparatus to:

5   determine an IP address of the DHCP server interface; and

6   determine a gateway IP address for the subnet.

1   24.   The article of manufacture of claim 21, wherein the electronically accessible medium

2   providing instructions that, when executed by the apparatus, cause the apparatus to

3   automatically determine configuration information for the DHCP server interface, comprises

4   instructions to cause the apparatus to:

5   determine an IP address of the router interface.

1   25.   The article of manufacture of claim 21, wherein the electronically accessible medium

2   providing instructions that, when executed by the apparatus, further cause the apparatus to

3   configure the DHCP server with the determined configuration information.

1   26.   The article of manufacture of claim 21, wherein the electronically accessible medium

2   providing instructions that, when executed by the apparatus, further cause the apparatus to

3   configure the router with the determined configuration information.

1   27.   A network comprising:

2   a router having a router interface associated with a subnet;

3   a Bootstrap Protocol (BOOTP) compliant server having an interface associated with

4   the subnet; and

5   a node coupled with the router and the BOOTP compliant server and having a

6   processor and logic executable thereon to

7   reference an electronic file to determine whether a BOOTP compliant

8   server interface and a router interface are on the same subnet; and

9   automatically determine configuration information for the BOOTP

10   compliant server interface based, at least in part, on information in the referenced data

11   structure; and

12   automatically determine configuration information for the router

13   interface based, at least in part, on information in the referenced data structure.

1   28.   The network of claim 27, wherein the referenced electronic file comprises a list of

2   network components having a standardized syntax.

1   29.   The network of claim 27, wherein the node coupled with the router and the BOOTP

2   compliant server and having a processor and logic executable thereon comprises logic

3   executable thereon further to

4   programmatically configure the router with the determined configuration information;

5   and to

6   programmatically configure the BOOTP compliant server with the determined

7   configuration information.